Appl. No 10/684,031
Amdt. Dated Nov. 9, 2005
Reply to Notice of Non-Complaint
Amendment of October 20, 2005

Sub-Spec
(in-part)

Field of Invention

Do Not
Enter
TM
1-17-06

This invention relates generally to the field of information acquisition and display devices on a real-time basis and more particularly to systems which monitor the operation of powered vehicles and which display the status or condition of various aspects of vehicle operation for the driver. The invention specifically relates to the display of systems involving the anti-lock braking system, the stability of the vehicle as to proximity to rolling over, the power consumed by vehicle components such as the heating system and lights and/or, for four-wheel drive vehicles, the torque and/or braking forces delivered to the wheels. The information is acquired from sensors and/or from signals generated by the vehicle and is processed by the vehicle CPU or, in another embodiment by a display CPU. The processed information is then displayed for the driver in black and white or in color using an LED, LCD, vacuum fluorescent means, numerical display, gauge or meter.

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Specification

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The best known method for the presentation of graphical information to the driver of a motor vehicle regarding specific real-time operating parameters of the vehicle using display devices is the present invention. These specific real-time operating parameters are defined as the operation of an anti-lock braking system (ABS) and/or the behavior of the vehicle as to stability, that is, to the approach of a rollover condition and/or operation of a vehicle as to the power consumed by vehicle components and/or, for four-wheel or all-wheel drive vehicles, operation of the vehicle as to the torque and/or braking forces delivered to the wheels (which are not limited to these factors).

The sophisticated manner in which a modern four-wheel drive vehicle's controlling CPU distributes torque to the wheels obscures the details of transferred power by transforming the vehicle's performance into a seamless and uniform continuity, regardless of road conditions. Variations in a wheel's traction due to a slippery surface result in the delivery of less power to the wheel to avoid slippage. This invisible and comprehensive management of power distribution greatly eases the burden of driving in dangerous situations. However many drivers would like to have, and frequently would benefit from viewing, displayed information regarding the real-time operation of the vehicle and the control system. It is to the presentation of this type of operational information that the present invention is oriented. The various data acquisition means, the related computational processes, the variety of display devices which can be utilized in real time and the various graphical symbols and forms together with their real-time variations are used to present said operating parameters and comprise the essence of the present invention. The manner of accelerating, braking and/or steering by a driver, affect a vehicle's performance. The dynamic display of these